United States Patent [19]

Ishiyama

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[54] **METHOD OF MANUFACTURING A CURVILINEAR ARRAY OF ULTRASONIC TRANSDUCERS**

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[52] **U.S. Cl.** **29/25.35**; 310/327; 310/335; 310/365
[58] **Field of Search** 29/25.35; 310/800, 334, 310/335, 357-359, 320, 365

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[57] **ABSTRACT**

A curvilinear array of ultrasonic transducers primarily for use in a medical diagnostic apparatus by which divergent ultrasonic beams are transmitted without resorting to sector scanning techniques to steer the ultrasonic beam. The curvilinear array of ultrasonic transducers includes a flexible transducer assembly bonded to a curvilinear surface of backing base. The flexible transducer assembly includes a flexible backing plate and an array of ultrasonic transducers elements disposed on the flexible backing. The array is formed of a transducer plate having grooves cut through to the flexible backing plate to isolate the transducer elements.

4 Claims, 3 Drawing Sheets